

WHAT IS CLAIMED IS:

1. A method of retrieving from an email message, information concerning at least one remotely monitored device, the method comprising:

a) obtaining a line of the email message containing the information;

b) decoding the line obtained from the email message if it has been encoded; and

c) decrypting the decoded line using an abstract decrypter class configured to perform a virtual function and using any one of a plurality of derived decrypter classes each of which is configured as a derived class of the abstract decrypter class;

wherein the abstract decrypter class and the any one of the derived decrypter classes are collectively configured to decrypt the decoded email message, using the any one of the derived decrypter classes with the abstract decrypter class without having to modify the abstract decrypter class.

2. A system of retrieving from an email message, information concerning at least one remotely monitored device, the system comprising:

a) means for obtaining a line of the email message containing the information;

b) means for decoding the line obtained from the email message if it has been encoded; and

c) means for decrypting the decoded line using an abstract decrypter class configured to perform a virtual function and using any one of a plurality of derived decrypter classes each of which is configured as a derived class of the abstract decrypter class;

wherein the abstract decrypter class and the any one of the derived decrypter classes are collectively configured to decrypt the decoded email message, using the any one of the

derived decrypter classes with the abstract decrypter class without having to modify the abstract decrypter class.

3. In a system for remotely monitoring devices by using a predetermined email protocol in sending information concerning at least one of the devices in an email message to a receiver including an email processing module, wherein the email processing module is structured to include:

i) an interface class configured to access an email server that is governed by the predetermined email protocol, and to obtain an email message that contains the information;

ii) an extractor class configured to extract a portion of the obtained email message that contains the information;

iii) a decoder class configured to decode the portion of the email message;

iv) an abstract decrypter class configured to perform a virtual function; and

v) a derived decrypter class configured as a derived class of the abstract decrypter class, wherein the abstract decrypter class and any derived decrypter class are collectively configured to decrypt the decoded email message;

a method of retrieving the information from the email message, the method comprising:

a) the interface class invoking a first function in the extractor class to obtain a line of the email message;

b) the extractor class invoking second functions in the decoder class to decode the line obtained from the email message and to return the decoded line to the extractor class; and

c) the extractor class invoking a third function in the derived decrypter class to decrypt the decoded line.

4. The method of Claim 3, further comprising:

5 repeating the interface class' invoking the first function in the extractor class to obtain a line of the email message until a last line of the email message has been obtained.

5. The method of Claim 3, wherein:

10 the information is included in an attachment to the email messages; and  
the extractor class is configured to extract the attachment from the email messages.

6. The method of Claim 5, wherein:

the attachment is a MIME attachment.

7. The method of Claim 3, wherein:

15 the decoder class is configured to perform Base64 decoding of the extracted email message.

8. The method of Claim 3, further comprising:

20 using a second derived decrypter class, distinct from the decrypter class, that is configured as a derived class of the abstract decrypter class, so that the abstract decrypter class and the second derived decrypter class are collectively configured to decrypt the decoded email message without changing the abstract decrypter class.

9. The method of Claim 3, wherein:

the predetermined email protocol is Post Office Protocol 3 (POP3).

10. In a system for remotely monitoring devices by using an SMTP email protocol to  
5 retrieve information concerning at least one of the devices in a MIME attachment of an email  
message to a receiver including a POP3 processing module, wherein the POP3 processing  
module is structured to include:

i) an interface class configured to access an email server that is governed by  
the POP3 protocol, and to obtain the email message including the MIME attachment  
10 that contains the information;

ii) an extractor class configured to extract the MIME attachment from the  
email message;

iii) a decoder class configured to perform Base64 decoding of the extracted  
MIME attachment;

15 iv) an abstract decrypter class configured to perform a virtual function; and

v) first and second derived decrypter classes, each configured as a derived  
class of the abstract decrypter class, wherein each abstract decrypter class and any  
derived decrypter class are collectively configured to decrypt the decoded MIME  
attachment without having to modify the abstract decrypter class;

20 *a method* of retrieving the information from the MIME attachment to the email message, the  
method comprising:

a) the interface class invoking a first function in the extractor class to obtain a line of  
the MIME attachment;

b) the extractor class invoking second functions in the decoder class to decode the line of the MIME attachment and to return a decoded line to the extractor class;

c) the extractor class invoking a third function in the derived decrypter class to decrypt the decoded line; and

5 d) repeating the interface class' invoking the first function in the extractor class to obtain a line of the MIME attachment until a last line of the MIME attachment has been obtained.

11. An email processing module especially suitable for use with a receiver of a system for remotely monitoring devices by using a predetermined email protocol in retrieving information concerning at least one of the devices in an email message, wherein the email processing module comprises:

a) an interface class configured to access an email server that is governed by the predetermined email protocol, and to obtain the email message that contains the information;

15 b) an extractor class configured to extract a portion of the obtained email message that contains the information;

c) a decoder class configured to decode the portion of the email message;

d) an abstract decrypter class configured to perform a virtual function; and

20 e) a derived decrypter class configured as a derived class of the abstract decrypter class;

wherein the abstract decrypter class and any derived decrypter class are collectively configured to decrypt the decoded email message without having to modify the abstract decrypter class.